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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,613	12/13/2001	Eric D. McAfee	42390.P12029	7665

8791 7590 08/31/2004

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EXAMINER

SAETHER, FLEMMING

ART UNIT	PAPER NUMBER
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3677

DATE MAILED: 08/31/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/017,613

Applicant(s)

MCAFEY, ERIC D.

Examiner

Flemming Saether

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*MS*

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-13,15-18 and 20-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-13,15-18 and 20-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Claim Rejections - 35 USC § 103***

Claims 1, 2, 4-13, 15-18 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gulistan in view of DiBene (US 5,785,449) and Schwarz (US 5,743,692). Gulistan discloses an apparatus comprising a cylindrical ferrule (12) having a channel therethrough, a first end having a capture extension flange (15) and, a second end having a "soldering" extension (18). A screw (10) protrudes through the channel and includes a head (30) with an overmold (13) having an extension (16) which cooperates with the capture extension holding the screw to the ferrule (see Fig. 2). Gulistan also discloses a spring (11). Gulistan does not disclose the apparatus soldered to a printed circuit board (PCB). In the embodiment of Fig. 4, DiBene also discloses a captive screw apparatus and method wherein the captive screw apparatus is connected to a first surface (12) of PCB and further disclose connection accomplished by a soldering method (column 6, line 54). At the time the invention was made, it would have been obvious for one of ordinary skill in the art to use the captive screw apparatus disclosed in Gulistan for fastening a PCB as disclosed in DiBene because the captive screw apparatus of Gulistan is superior in that it is "both simple and economical to manufacture, and readily installed and used". The advantageous design of Gulistan's captive screw apparatus would have been recognized to be used in variety of applications including in combination with PCBs. Inherently, the channel and a mounting hole in the PCB would have to be aligned for the device to be operative. Schwarz discloses a ferrule to have a flange (46) for soldering. Since the flange is circular in shape, the solder would be in the form of a ring. At the time the invention

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was made, it would have been obvious for one of ordinary skill in the art to provide the ferrule of Gulistan and Gulistan as modified by DiBene with a flange as disclosed in Schwarz in order to facilitate soldering. The flange would provide a larger surface area to provide a better solder bond.

***In response to Remarks:***

Applicant's arguments have been considered but, are largely moot in view of the new grounds of rejection which were necessitated by applicant's amendments.

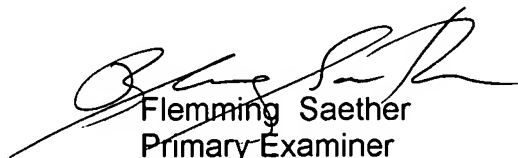
Applicant continues argue that DiBene does not disclose the soldering of any apparatus to a PCB. Applicant goes on that in DiBene the apparatus is soldered to a "front panel" which applicant does not consider as being part of the PCB. In response, the examiner disagrees because with the claims given their broadest reasonable interpretation the "front panel" is a part of the PCB. Even in DiBene, the front panel is repeatedly referred to as the "front panel 12 of printed circuit board 14" [emphasis added] thus implying it is a part of the printed circuit board or PCB. Furthermore, there is nothing in the claims which would preclude reading the front panel, as a part of a PCB regardless of its configuration since the claims do not include any limitation preventing such a broad reading of the first surface of the PCB.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Flemming Saether whose telephone number is 703-308-0182. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on 703-306-4115. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Flemming Saether  
Primary Examiner  
Art Unit 3677